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Jameco Part Number 1809944

SUNON

DC Brushless Fan

KDE SERIES

SUNON KDE Series

Context

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2 ..... Magnetic System Design

3 ..... 3rd Wire Fan Information

4 ..... DC Brushless Fan Model Number

5 ..... 17x17x8mm,20x20x8mm

6 ..... 20x20x10mm,25x25x6mm,25x25x10mm,25x25x15mm

7 ..... 30x28x10mm,30x30x6mm,30x30x10mm,30x30x15mm

8 ..... 35x35x6mm,35x35x10mm,40x40x6mm,40x40x8mm

9 ..... 40x40x10mm,40x40x20mm,45x45x10mm

10 ..... 50x50x10mm,50x50x15mm,52x52x15mm,55x55x10mm

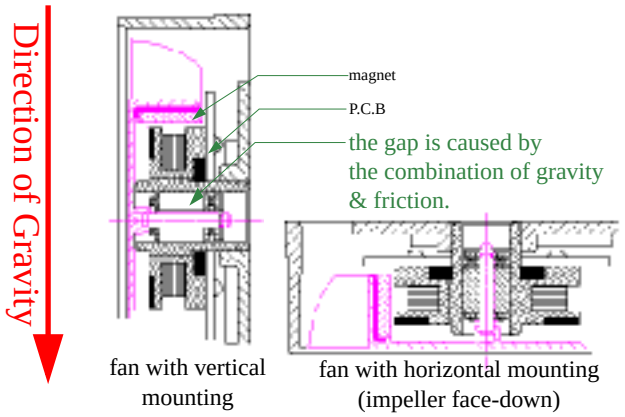
11 ..... 60x60x10mm,60x60x15mm,60x60x20mm,60x60x25mm

12 ..... 80x80x25mm,92x92x25mm,120x120x25mm,120x120x38mm

Safety & Certification

Comparison of Magnetic system design with traditional fans:

Traditional Motor Design(Sleeve)



For any traditional design fan, the shaft is carrying the weight of the rotor, therefore, the impeller tends to wobble during rotation.

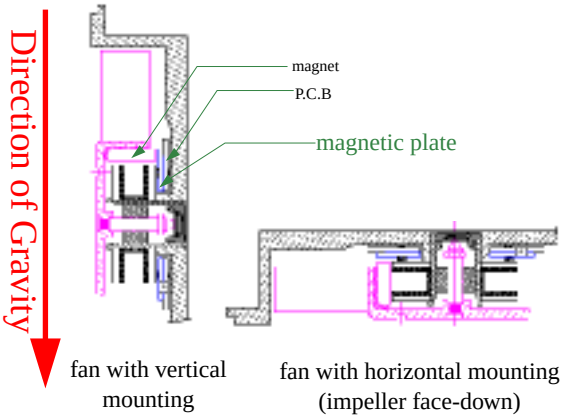
When the fan in operating, in particular, with vertical mounting or with impeller facing down, the wear of bearing, vibration and noise become more severe.(as shown above).

Thus for fan with traditional oil-impregnated sleeve bearing, it is not practical to change the orientation as this would make the wear of bearing and vibration worse.

Furthermore, the variation of noise level is large for different mounting angle.

- For traditional sleeve design, because of the weight on shaft, not only the impeller is prevented from circular motion with fixed center, but also tends to vibrate after long period wearing out of sleeve bearing and cause different degrees of noise level.
- In the traditional fan design, the impeller is secured in place by the lock washer. The rotational center point of the shaft is quite often altered by gravity effect. Accordingly, the impeller can not rotate with fixed center.
- In addition to the lock washer, oil ring and other spacing washers are used in the bearing system. All these loose hardwares will increase the wear and result in higher noise and shorter operating life.

Motor with Magnetic System Design(VAPO)



The unique Magnetic System Design developed by Sunon working with the magnetic field created by the built-in magnet of the impeller generates a magnetic force that attracts the impeller uniformly in 360 degree circle towards the bearing when rotating. Therefore, Sunon fan with patented magnetic system design has the following design advantages:

- With the existence of the magnetic force, the impeller rotates evenly in fixed orbit with orbit center point. Consequently, the vibration of the impeller is significantly reduced as well as the wear of bearing. As a result, the operating life of fan is extended.
- In addition, the elimination in the use of some assembly hardwares such as oil ring and washer, reduces friction and therefore the wear where the components contact with the bearing. Accordingly, life of the bearing is increased and the noise level is also reduced significantly.
- Since the impeller is rotating at fixed orbit and fixed center point and the weight of the impeller is entirely neutralized by the magnetic plate, the shaft is able to rotate with fixed center. Thue impeller will not vibrate when rotating in any mounting angle. The fan noise level is much lower and the operating life much longer.
- The above-mentioned advantages, plus the magnetic system design combined with the VAPO bearing which is made of special treated material for wear-resist and impact-resist can definitely replace the ball bearing.

*Specifications subject to change without notice

Fan 3rd Wire Signal

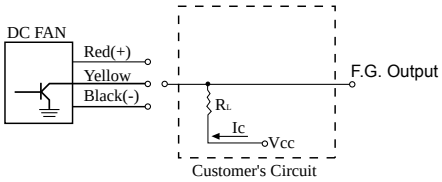
Fan with switching driving circuit designed for rpm measurement:
These fan motors have three lead wires:(+:Red,-:Black,output signal for 3rd wire:Yellow)

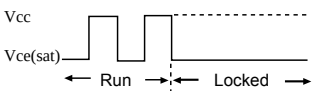
OCM Type

- Low voltage start-up
- 3rd wire square wave signal was amplified by a transistor (open collector type)

TM Type

- 3rd wire square wave signal was amplified by a transistor (open collector type)



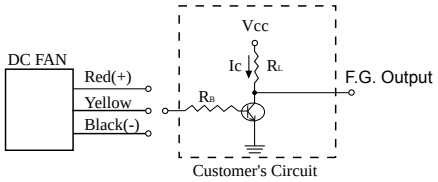


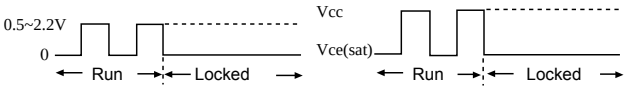
Vcc=+30V max
Ic=10mA max
Vce(sat)=0.5V max

$$Ic=\frac{Vcc-Vce(sat)}{RL} \leqslant 10\ mA$$

M Type

- 3rd wire square wave signal was not amplified, only 0.5~2.2 volts (5V), 0.5~6.0 volts (12V)



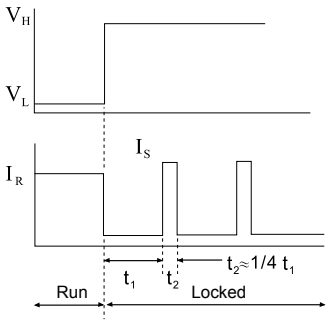


$$Ic=\frac{Vcc-Vce(sat)}{RL} \leqslant 10\ mA$$

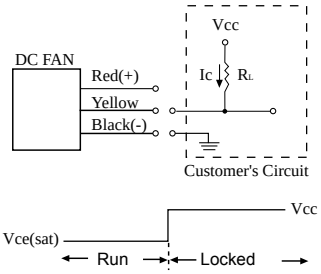
RB=2kΩ(5V), or 4.7kΩ(12V)

Fan with driver IC:

R Type (Rotation Detector)



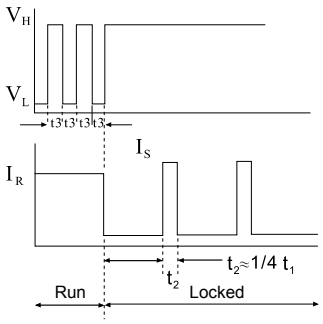
3rd wire signal :
Run :V_L
Locked :V_H
t_1:Locked protection by cut-off run current (I_R)
t_2:Auto-restart by sending starting current (I_S)



Vcc=+30V max
Ic=10mA max

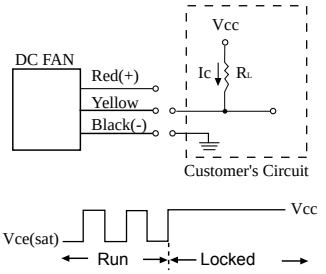
$$Ic=\frac{Vcc}{RL}$$

F Type (Frequency Generator)



3rd wire signal :
Run :Square Wave
Locked :V_H
t_3:F Type has open collector circuit designed for rpm measurement.

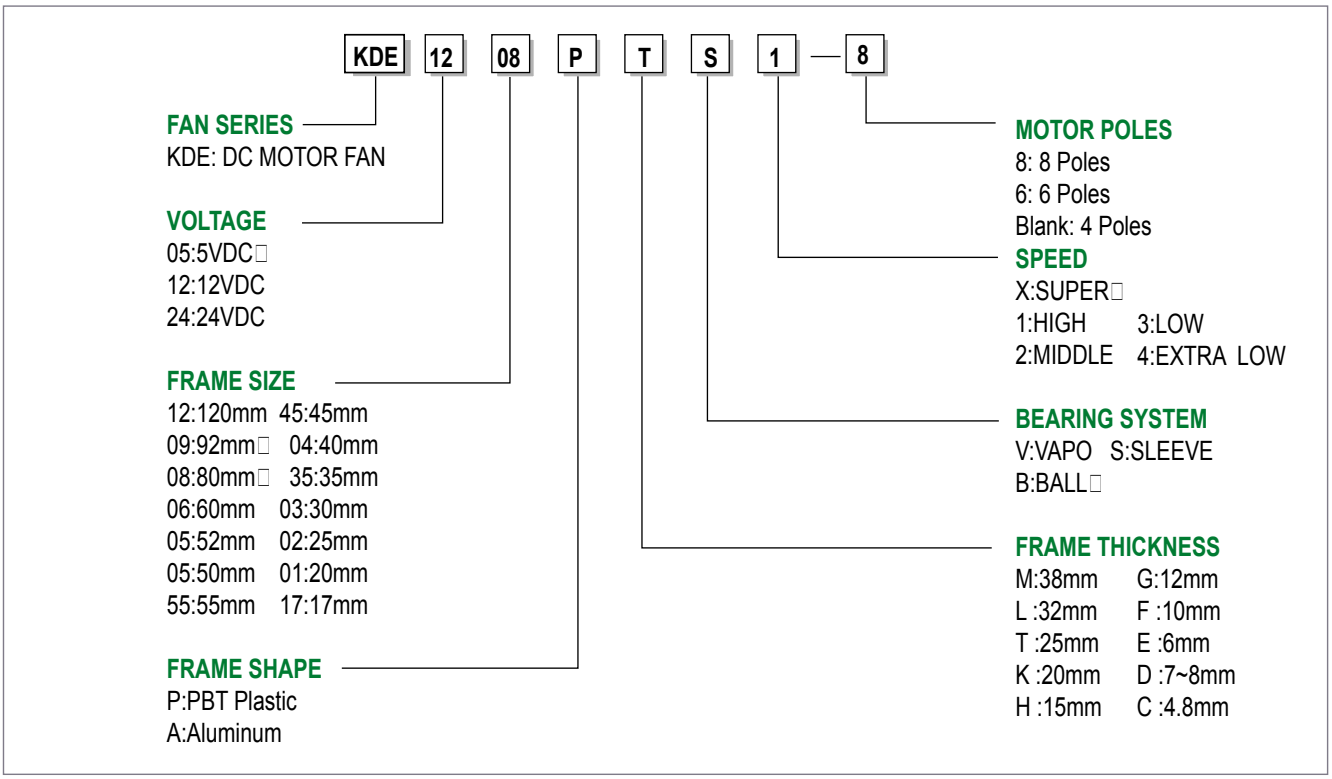
$$Rpm=\frac{60}{t_3 x Poles}$$



Vcc=+30V max
Ic=10mA max

$$Ic=\frac{Vcc}{RL}$$

DC Brushless Fan Model Numbering System



Suffix P/N

Example: P/N: MS.(2).V.M.C89

- A : Motor protection by IC
  (Only available for 8025/9225/12025/12038 Series)
- AS : Motor protection by IC combined with a temperature sensor
  (Only available for 8025/9225/12025/12038 Series)
- AR : Motor protection by IC with rotation detector waveform
  (Only available for 8025/9225/12025/12038 Series)
- AF : Motor protection by IC with frequency generation waveform
  (Only available for 8025/9225/12025/12038 Series)
- MS : Magnetic system design with open collector
- (2) : Two ball bearing
- N : Smaller hub
- G : Big hub
- V : New blade
- OC : Low voltage start-up & open collector type
- OCM : OC with 3rd wire square wave signal amplified by a transistor
- OCC : OC with 3 caps
- OCCM : OCM with 3 caps
- TM : No low voltage start-up with open collector type
  (Only available for 2515/3015/4010/4510/5010/6010-8P/5215/6015/4020/6020/6025-4P Series)
- M : 3rd wire square wave signal was not amplified
- AXX : Lead wire different
- BXX : Special circuit design
- CXX : Special frame or impller different

*Specifications subject to change without notice

SUNON KDE Series

DC Brushless Fan

■ MOTOR	: Patented Brushless DC Motor design
■ FRAME	:□Injection molded non-flammable black thermoplastic UL 94V-0 Rating and aluminum
■ IMPELLER	:□Injection molded non-flammable black thermoplastic UL 94V-0 Rating
■ BEARING	:□Precision, life-lubricated ball bearing system Precision, oil-impregnated sintered sleeve bearing system
■ INSULATION	: Class E integral ground system rated @ 100°C
■ INSULATION RESISTANCE	:□More than 500M ohm between internal stator and lead wire(+) measured by DC 500V
■	
■ DIELECTRIC STRENGTH	:□600VAC for one minute
■ SAFETY PROTECTION	:□Electronic locked rotor protected
■ OPERATING TEMPERATURE	: -10 to +70°C
■ STORAGE TEMPERATURE	: -40 to +70°C
■ OPERATING VOLTAGE	: Rated Voltage ±15%
■ OPERATING POWER	:□Rated power & current tolenrance ±15%
■ PROFESSIONAL DESIGN	: We can design to fit any special application requirement

DC Brushless Fan

1708 :17x17x8mm

Model	P/N	Bearing ● VAPO ◉ SLEEVE ○ BALL	Rating Voltage (VDC)	Power Current (AMP)	Power Consumption (WATTS)	Speed (RPM)	Air Flow (CFM)	Static Pressure (Inch-H_2O)	Noise (dBA)	Weight (g)
KDE0517PDB1-8	V	○	5	0.19□	1.0□	20000□	1.1□	0.26□	29	4
KDE0517PDB2-8	V	○	5	0.12□	0.6□	15000□	0.8□	0.20□	27	4
KDE0517PDB3-8	V	○	5	0.08□	0.4□	11000□	0.6□	0.10□	25	4

2008 :20x20x8mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KDE0501PDB1-8		○	5	0.20□	1.0□	15000□	1.3□	0.18□	29□	5□
KDE0501PDB2-8		○	5	0.12□	0.6□	12000□	1.0□	0.15□	26□	5□
KDE0501PDB3-8		○	5	0.08□	0.4□	9000□	0.7□	0.11□	24□	5□

*Specifications subject to change without notice

2000/9/1

SUNON KDE Series

DC Brushless Fan

2010 :20x20x10mm

Model	P/N	Bearing ● VAPO ⊙SLEEVE ○ BALL	Rating Voltage (VDC)	Power Current (AMP)	Power Consumption (WATTS)	Speed (RPM)	Air Flow (CFM)	Static Pressure (Inch-H_2O)	Noise (dBA)	Weight (g)
KD0501PFV1-8	MS	●	5	0.17	0.9	15000	2.2	0.26	26	6.5
KD0501PFV2-8	MS	●	5	0.09	0.45	10000	1.45	0.15	22	6.5
KD0501PFV3-8	MS	●	5	0.06	0.3	7300	0.86	0.07	20	6.5
KD0501PFB1-8		○	5	0.16	0.8	17000	1.5	0.33	28	6.5
KD0501PFB2-8		○	5	0.11	0.5	14000	1.1	0.21	26	6.5
KD0501PFB3-8		○	5	0.06	0.3	10000	1.8	0.13	23	6.5
KD0501PFB1-8	MS	○	5	0.17	0.9	15000	2.2	0.26	27.5	6.5
KD0501PFB2-8	MS	○	5	0.09	0.45	10000	1.45	0.15	23	6.5
KD0501PFB3-8	MS	○	5	0.06	0.3	7300	0.86	0.07	21	6.5

2506 :25x25x6mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KD0502PEV1-8	MS.N	●	5	0.16	0.8	13000	3.0	0.22	31	5
KD0502PEV2-8	MS.N	●	5	0.11	0.6	11500	2.7	0.18	26	5
KD0502PEB1-8		○	5	0.12	0.6	13000	1.6	0.15	29	6
KD0502PEB2-8		○	5	0.08	0.4	10000	1.2	0.10	26.5	6
KD0502PEB3-8		○	5	0.05	0.25	7000	0.8	0.04	19	6
KD0502PEB1-8	MS.N	○	5	0.16	0.8	13000	3.0	0.22	32	5
KD0502PEB2-8	MS.N	○	5	0.11	0.6	11500	2.7	0.18	27	5
KD0502PEB1-8	OC	○	5	0.10	0.5	11500	3.35	0.18	27	6
KD0502PEB2-8	OC	○	5	0.10	0.5	8500	2.5	0.11	21	6

2510 :25x25x10mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KD0502PFV1-8	MS	●	5	0.17	0.9	11500	3.15	0.20	25.4	7
KD0502PFV2-8	MS	●	5	0.12	0.6	9500	2.53	0.16	24	7
KD0502PFV3-8	MS	●	5	0.06	0.3	6500	1.83	0.09	23	7
KD0502PFV4-8	MS	●	5	0.03	0.15	5000	1.35	0.05	20	7
KD0502AFV1-8	MS	●	5	0.17	0.9	11500	3.15	0.20	26.5	7
KD0502AFV2-8	MS	●	5	0.12	0.6	9500	2.53	0.16	25	7
KD0502AFV3-8	MS	●	5	0.06	0.3	6500	1.83	0.09	23.5	7
KD0502PFB1-8		○	5	0.17	0.9	13000	2.4	0.20	33	7
KD0502PFB2-8		○	5	0.12	0.6	10000	2.0	0.16	30	7
KD0502PFB3-8		○	5	0.06	0.3	7000	1.3	0.09	26	7
KD0502PFB4-8		○	5	0.03	0.15	5000	0.8	0.035	20	7
KD0502PFB1-8	MS	○	5	0.17	0.9	11500	3.15	0.20	26.5	7
KD0502PFB2-8	MS	○	5	0.12	0.6	9500	2.53	0.16	25	7
KD0502PFB3-8	MS	○	5	0.06	0.3	6500	1.83	0.09	23.5	7
KD0502PFB4-8	MS	○	5	0.03	0.15	5000	1.35	0.05	21	7
KD0502AFB1-8	MS	○	5	0.17	0.9	11500	3.15	0.20	27	7
KD0502AFB2-8	MS	○	5	0.12	0.6	9500	2.53	0.16	26	7
KD0502AFB3-8	MS	○	5	0.06	0.3	6500	1.83	0.09	24	7
KD0502PFB1-8	V	○	5	0.17	0.85	11500	3.15	0.20	32	7
KD0502PFB2-8	V	○	5	0.12	0.6	9500	2.53	0.16	29	7
KD0502PFB3-8	V	○	5	0.06	0.3	6500	1.83	0.09	37	7
KD0502AFB1-8	V	○	5	0.17	0.9	11500	3.15	0.20	31	9
KD0502AFB2-8	V	○	5	0.12	0.6	9500	2.53	0.16	29	9
KD0502AFB3-8	V	○	5	0.06	0.3	6500	1.83	0.09	27	9
KD1202PFB1-8		○	12	0.08	1.0	13000	2.4	0.20	33	7
KD1202PFB2-8		○	12	0.06	0.7	10000	2.0	0.16	30	7
KD1202PFB3-8		○	12	0.04	0.5	7000	1.3	0.09	26	7

2515 :25x25x15mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KD0502PHB1-8		○	5	0.16	0.8	12000	3.7	0.28	29	11
KD0502PHB2-8		○	5	0.12	0.6	10000	3.1	0.16	22	11
KD0502PHB3-8		○	5	0.06	0.3	7000	2.2	0.11	16	11

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2000/9/1

SUNON KDE Series

DC Brushless Fan

3028 :30x28x10mm

Model	P/N	Bearing ● VAPO ⊙SLEEVE ○ BALL	Rating Voltage (VDC)	Power Current (AMP)	Power Consumption (WATTS)	Speed (RPM)	Air Flow (CFM)	Static Pressure (Inch-H_2O)	Noise (dBA)	Weight (g)
KDE0528AFV1-8	MS	●	5	0.18□	0.9□	11000□	2.4□	0.13□	30□	9□
KDE0528AFV2-8	MS	●	5	0.12	0.6	9000	1.8	0.10	28	9□
KDE0528AFB1-8		○	5	0.18□	0.9□	11000□	2.4□	0.13□	32□	9□
KDE0528AFB2-8		○	5	0.12□	0.6□	9000□	1.8□	0.10□	30□	9□
KDE0528AFB3-8		○	5	0.06□	0.3□	6500□	1.5□	0.08□	27□	9□
KDE0528AFB1-8	MS	○	5	0.18□	0.9□	11000□	2.4□	0.13□	31□	9□
KDE0528AFB2-8	MS	○	5	0.12□	0.6□	9000□	1.8□	0.10□	29□	9□

3006 :30x30x6mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KDE0503PEV1-8	MS.N	●	5	0.18□	0.9□	9500□	4.9□	0.14□	28□	6
KDE0503PEV2-8	MS.N	●	5	0.11	0.55□	8000	3.7□	0.09	23□	6
KDE0503PEB1-8		○	5	0.13□	0.65□	9500□	3.0□	0.15□	31□	6
KDE0503PEB2-8		○	5	0.09□	0.45□	7500□	2.4□	0.08□	26□	6
KDE0503PEB3-8		○	5	0.05□	0.3□	5500□	1.9	0.065□	20□	6
KDE0503PEB1-8	MS.N	○	5	0.18□	0.9□	9500□	4.9□	0.14□	29□	6
KDE0503PEB2-8	MS.N	○	5	0.11	0.55□	8000□	3.7□	0.09	24	6

3010 :30x30x10mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KDE0503PFV1-8	MS	●	5□	0.18□	0.9□	8000□	5.1□	0.14□	22.5□	7.5
KDE0503PFV2-8	MS	●	5□	0.12□	0.6□	7000□	4.2□	0.11□	20.5□	7.5□
KDE0503PFV3-8	MS	●	5□	0.06□	0.3□	5000□	3.15□	0.06□	18.5□	7.5□
KDE0503PFV4-8	MS	●	5	0.03	0.15	4000	2.59	0.04	17.5	7.5
KDE0503PFB1-8		○	5	0.18□	0.9□	9500□	3.5□	0.14□	27□	7.5□
KDE0503PFB2-8		○	5	0.12□	0.6□	8000□	3.0□	0.11□	25□	7.5
KDE0503PFB3-8		○	5	0.06□	0.3□	5500□	2.3□	0.07□	18.5□	7.5□
KDE0503PFB4-8		○	5	0.03□	0.15□	4000□	1.4□	0.03□	18□	7.5
KDE0503PFB1-8	MS	○	5□	0.18□	0.9□	8000□	5.1□	0.14□	24□	7.5□
KDE0503PFB2-8	MS	○	5□	0.12□	0.6□	7000□	4.2□	0.11□	22□	7.5
KDE0503PFB3-8	MS	○	5□	0.06□	0.3□	5000□	3.15□	0.06□	20□	7.5□
KDE0503PFB4-8	MS	○	5□	0.03	0.15□	4000	2.59	0.04□	18□	7.5
KDE0503PFB1-8	V	○	5□	0.18□	0.9□	8000	5.1	0.14	28	7.5□
KDE0503PFB2-8	V	○	5□	0.12□	0.6□	7000	4.2	0.105	26	7.5
KDE0503PFB3-8	V	○	5□	0.06□	0.3□	5000	3.15	0.06	24	7.5□
KDE0503PAB1-8	V	○	5□	0.18□	0.9□	8000	5.1	0.14	28	7.5
KDE0503PAB2-8	V	○	5□	0.12□	0.6□	7000	4.2	0.105	26	7.5
KDE0503PAB3-8	V	○	5	0.06□	0.3□	5000□	3.15□	0.06	24	7.5
KDE1203PFB1-8		○	12□	0.08□	0.9□	9500□	3.5□	0.14□	27□	9.5
KDE1203PFB2-8		○	12□	0.07□	0.8□	8000□	3.0□	0.11□	25□	9.5
KDE1203PFB3-8		○	12□	0.05	0.6□	6500	2.3□	0.07	18.5□	9.5
KDE1203PFB1-8	V	○	12□	0.08□	0.9□	8000	5.1	0.14	32	7.5□
KDE1203PFB2-8	V	○	12□	0.07□	0.8□	7000	4.2	0.11	20.5	7.5□
KDE1203PFB3-8	V	○	12	0.05□	0.6□	5000□	3.15	0.06□	25	7.5

3015 :30x30x15mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)□	(Inch-H2O)	(dBA)	(g)
KDE0503PHB1-8		○	5□	0.17□	0.9□	8500□	6.0□	0.16□	27□	12□
KDE0503PHB2-8		○	5	0.12	0.6	7000	4.8	0.11	22	12
KDE0503PHB3-8		○	5□	0.07□	0.35□	5500□	3.2	0.10	17□	12

*Specifications subject to change without notice

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SUNON KDE Series

DC Brushless Fan

3506 :35x35x6mm

Model	P/N	Bearing ● VAPO ◉ SLEEVE ○ BALL	Rating Voltage (VDC)	Power Current (AMP)	Power Consumption (WATTS)	Speed (RPM)	Air Flow (CFM)	Static Pressure (Inch-H_2O)	Noise (dBA)	Weight (g)
KDE0535PEV1-8	MS.N	●	5□	0.19□	0.9□	6800□	5.0□	0.07□	23□	7□
KDE0535PEV2-8	MS.N	●	5	0.12	0.6	5800	4.3	0.055	19	7
KDE0535PEB1-8	MS.N	○	5□	0.19□	0.9□	6800□	5.0□	0.07	24□	7□
KDE0535PEB2-8	MS.N	○	5	0.12	0.6	5800	4.3	0.055	20	7

3510 :35x35x10mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KDE0535PFV1-8	MS	●	5	0.19□	1.0□	7000□	5.2□	0.09□	24□	9
KDE0535PFV2-8	MS	●	5□	0.13□	0.7□	6000□	4.5□	0.08□	20.5□	9
KDE0535PFV3-8	MS	●	5	0.07□	0.3□	4500□	3.2□	0.05□	19□	9
KDE0535PFB1-8		○	5	0.19□	1.0□	7000□	5.2□	0.09□	25□	9
KDE0535PFB2-8		○	5	0.13□	0.7□	6000□	4.5□	0.08□	21□	9
KDE0535PFB3-8		○	5	0.07□	0.3□	4500□	3.2□	0.05□	18□	9
KDE0535PFB1-8	MS	○	5	0.19□	1.0□	7000□	5.2□	0.09□	25□	9
KDE0535PFB2-8	MS	○	5	0.13□	0.7□	6000□	4.5□	0.08□	21□	9
KDE0535PFB3-8	MS	○	5	0.07□	0.3□	4500□	3.2□	0.05□	19.5	9
KDE1235PFV1-8	MS	●	12□	0.08□	1.0□	7000□	5.2□	0.09□	24□	9
KDE1235PFV2-8	MS	●	12□	0.07□	0.8□	6000□	4.5□	0.08□	20.5□	9
KDE1235PFV3-8	MS	●	12	0.05□	0.6□	4500□	3.2□	0.05□	19□	9
KDE1235PFB1-8		○	12□	0.08□	1.0□	7000□	5.2□	0.09□	25□	9
KDE1235PFB2-8		○	12□	0.07□	0.8□	6000□	4.5□	0.08□	21□	9
KDE1235PFB3-8		○	12	0.05□	0.6□	4500□	3.2□	0.05□	18□	9
KDE1235PFB1-8	MS	○	12□	0.08□	1.0□	7000□	5.2□	0.09□	25□	9
KDE1235PFB2-8	MS	○	12□	0.07□	0.8□	6000□	4.5□	0.08□	21□	9
KDE1235PFB3-8	MS	○	12□	0.05	0.6	4500	3.2	0.05	19.5	9

4006 :40x40x6mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KDE0504PEV1-8	MS	●	5	0.21	1.0	7000	5.9	0.10□	32	7.5
KDE0504PEV2-8	MS	●	5	0.11	0.55□	6000	5.3	0.07	28	7.5
KDE0504PEB1-8		○	5	0.14□	0.7□	6000□	5.5□	0.08□	26□	7□
KDE0504PEB2-8		○	5	0.10□	0.5□	5000□	4.4□	0.05□	23□	7□
KDE0504PEB3-8		○	5	0.06□	0.3□	4000□	3.5□	0.04□	20□	7□
KDE0504PEB1-8	MS	○	5	0.21	1.0□	7000	5.9	0.10□	33□	7.5
KDE0504PEB2-8	MS	○	5	0.11	0.55	6000	5.3	0.07	29	7.5

4008 :40x40x8mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KDE0504PDV2-8	MS	●	5	0.15	0.8□	5500□	5.3□	0.12□	31□	11.8□
KDE1204PDV2-8	MS	●	12□	0.07□	0.8	5500	5.3	0.12	31	11.8□

*Specifications subject to change without notice

SUNON KDE Series

DC Brushless Fan

4010 :40x40x10mm

Model	P/N	Bearing ● VAPO ◉SLEEVE ○ BALL	Rating Voltage (VDC)	Power Current (AMP)	Power Consumption (WATTS)	Speed (RPM)	Air Flow (CFM)	Static Pressure (Inch-H_2O)	Noise (dBA)	Weight (g)
★ KDE1204PFV1	MS	●	12	0.11	1.3	8200	8.1	0.22	33	16
★ KDE1204PFV2	MS	●	12	0.08	1.0	7000	6.6	0.17	28	16
KDE1204PFS1-8		◉	12	0.06	0.7	7000	6.6	0.17	30	16
KDE1204PFS2-8		◉	12	0.05	0.6	6000	5.6	0.13	28	16
KDE1204PFS3-8		◉	12	0.04	0.5	4500	4.5	0.09	22.8	16
KDE1204PFB1-8		○	12	0.06	0.7	7300	6.9	0.19	30.5	16
KDE1204PFB2-8		○	12	0.05	0.6	6100	6.0	0.14	28.5	16
KDE1204PFB3-8		○	12	0.04	0.5	5300	4.8	0.10	23.5	16
KDE1204PFB1	OC	○	12	0.12	1.4	8400	8.3	0.19	34.4	15.5
KDE1204PFB2	OC	○	12	0.08	1.0	6600	6.5	0.15	27	15.5
KDE1204PFB3	OC	○	12	0.05	0.6	5200	4.7	0.10	24	15.5
KDE1204PFB1	MS	○	12	0.11	1.3	8800	8.6	0.23	37	16
KDE1204PFB2	MS	○	12	0.08	1.0	7600	7.0	0.18	32	16

4020 :40x40x20mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KDE0504PKS2		◉	5	0.21	1.0	6000	6.5	0.12	25.5	28
KDE0504PKS3		◉	5	0.14	0.7	4500	5.2	0.08	22.8	28
KDE0504PKB2		○	5	0.21	1.0	6500	7.0	0.16	29	28
KDE0504PKB3		○	5	0.14	0.7	5300	6.2	0.12	24	28
KDE1204PKVX	MS	●	12	0.13	1.6	8000	10.0	0.24	27.5	30
KDE1204PKV1	MS	●	12	0.10	1.2	7000	8.5	0.19	25.5	30
KDE1204PKV2	MS	●	12	0.07	0.8	6000	7.3	0.14	20	30
KDE1204PKV3	MS	●	12	0.05	0.6	5000	6.0	0.10	18	30
KDE1204PKS2		◉	12	0.07	0.9	6000	6.5	0.12	25.5	28
KDE1204PKS3		◉	12	0.05	0.6	4500	5.2	0.08	22.8	28
KDE1204PKB2		○	12	0.07	0.9	6400	6.8	0.15	29	28
KDE1204PKB3		○	12	0.05	0.6	5000	6.0	0.11	24	28
KDE1204PKB1	MS	○	12	0.10	1.2	7200	8.9	0.21	26	30
KDE1204PKB2	MS	○	12	0.07	0.8	6200	7.7	0.16	21.5	30
KDE1204PKB3	MS	○	12	0.05	0.6	5200	6.3	0.11	18.5	30
KDE2404PKS1		◉	24	0.07	1.7	7900	8.4	0.16	33.5	35
KDE2404PKS2		◉	24	0.05	1.2	6000	6.5	0.12	25.5	20
KDE2404PKS3		◉	24	0.03	0.7	4500	5.2	0.08	22.8	20
KDE2404PKB2		○	24	0.04	1.0	6500	7.0	0.16	26.5	20
KDE2404PKB3		○	24	0.03	0.7	5000	6.0	0.11	23.5	20

4510 :45x45x10mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
★ KDE1245PFV1	MS	●	12	0.11	1.3	7400	10	0.20	33.5	18
★ KDE1245PFV2	MS	●	12	0.08	1.0	6100	8.3	0.14	29.5	18
KDE1245PFS1-8		◉	12	0.07	0.8	6000	8.0	0.14	28.5	20
KDE1245PFS2-8		◉	12	0.06	0.7	5200	7.0	0.11	27	20
KDE1245PFS3-8		◉	12	0.04	0.5	4000	5.5	0.07	23	20
KDE1245PFB1-8		○	12	0.07	0.8	6300	9.0	0.155	29	20
KDE1245PFB2-8		○	12	0.06	0.7	5500	7.5	0.12	28	20
KDE1245PFB3-8		○	12	0.04	0.5	4500	6.2	0.095	26	20
KDE1245PFB1	OC	○	12	0.12	1.4	7100	9.5	0.16	33.8	20
KDE1245PFB2	OC	○	12	0.08	1.0	5900	8.0	0.13	29	20
KDE1245PFB3	OC	○	12	0.05	0.6	4400	6.1	0.10	23	20
KDE1245PFB1	MS	○	12	0.11	1.3	7500	10.2	0.20	37	18
KDE1245PFB2	MS	○	12	0.08	1.0	6600	8.9	0.15	33.5	18

*Specifications subject to change without notice

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SUNON KDE Series

DC Brushless Fan

5010 :50x50x10mm

Model	P/N	Bearing ● VAPO ⊙SLEEVE ○ BALL	Rating Voltage (VDC)	Power Current (AMP)	Power Consumption (WATTS)	Speed (RPM)	Air Flow (CFM)	Static Pressure (Inch-H_2O)	Noise (dBA)	Weight (g)
KDE1205PFV1	MS.G	●	12	0.15□	1.8□	6500□	12.3□	0.19□	35□	25□
KDE1205PFV2	MS.G	●	12	0.10	1.2	5500	10.4	0.15	31	25
KDE1205PFV1	MS	●	12	0.12□	1.4□	6300	12.0□	0.15□	34□	20□
KDE1205PFV2	MS	●	12	0.09	1.1	5500	10.0	0.12	30	20□
KDE1205PFS1-8		⊙	12	0.07□	0.9□	5100	9.6	0.105	30.5	24□
KDE1205PFS2-8		⊙	12	0.06□	0.7□	4300	8.0	0.09	29	24□
KDE1205PFS3-8		⊙	12	0.04□	0.5□	3500	7.0	0.065	21	24□
KDE1205PFB1-8		○	12	0.07□	0.9	5400	10.2	0.11	31.5	24□
KDE1205PFB2-8		○	12	0.06□	0.7□	4700	9.2	0.10	30	24□
KDE1205PFB3-8		○	12	0.04□	0.5	3800□	7.2□	0.07	22□	24□
KDE1205PFB1	OC	○	12	0.13□	1.6□	6000□	11.4□	0.12□	34.7□	23□
KDE1205PFB2	OC	○	12	0.08□	1.0□	5000□	9.5□	0.10□	28.9□	23□
KDE1205PFB3	OC	○	12	0.06□	0.7□	4200	8.0	0.08	24.3□	23□
KDE1205PFB1	MS.G	○	12	0.15□	0.15□	7000□	12.5□	0.19□	36□	25□
KDE1205PFB2	MS.G	○	12	0.10□	0.10□	5500□	10.4□	0.15	31.5□	25□
KDE1205PFB1	MS	○	12	0.12□	1.4□	6500□	12.4□	0.17□	37□	20□
KDE1205PFB2	MS	○	12	0.09	1.1	5500	10.0	0.12	32	20

5015 :50x50x15mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KDE1205PHV1	MS	●	12	0.13□	1.5□	5500□	16□	0.21□	33□	37
KDE1205PHV2	MS	●	12□	0.08□	1.0□	4500□	12	0.14	28.5□	37
KDE1205PHB1	MS	○	12□	0.13□	1.5□	5800□	17	0.23□	34□	37
KDE1205PHB2	MS	○	12□	0.08□	1.0□	4700□	13	0.17□	29.5□	37
KDE1205PHB2	MS(2)	○	12	0.08	1.0	4700	13	0.17	29.5	37

5215 :52x52x15mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KDE0505PHS2		⊙	5	0.38□	1.9□	5000□	12.4□	0.14□	27□	39□
KDE0505PHS3		⊙	5□	0.24□	1.2□	4000□	7.6□	0.12□	24□	39
KDE0505PHB2		○	5□	0.38□	1.9□	5300□	12.7□	0.16□	27.8□	39
KDE0505PHB3		○	5	0.24□	1.2□	4300□	8.5□	0.14□	25.4□	39
KDE1205PHS2□		⊙	12□	0.14□	1.7□	5000□	12.4□	0.14□	27□	39
KDE1205PHS3		⊙	12□	0.08□	0.9□	4000□	7.6□	0.12□	24□	39
KDE1205PHB2		○	12□	0.14□	1.7□	5300□	12.7□	0.16□	27.8□	39
KDE1205PHB3		○	12□	0.08□	0.9	4300	8.5	0.14	25.4	39

5510 :55x55x10mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KDE1255PFV1-8	MS.G	●	12□	0.15	1.8	5700	14.0	0.14	37.4	26
KDE1255PFV2-8	MS.G	●	12□	0.11	1.3	4700	12.0	0.11	30.9	26
KDE1255PFS1-8		⊙	12□	0.08□	1.0□	5400□	13.0□	0.135□	31□	16□
KDE1255PFS2-8		⊙	12□	0.06□	0.7□	4700□	11.5□	0.107□	30□	16□
KDE1255PFS3-8		⊙	12□	0.05□	0.6□	4200□	10.3	0.09□	26□	16□
KDE1255PFB1-8		○	12	0.08□	1.0□	5600□	13.5□	0.14□	32□	16□
KDE1255PFB2-8		○	12	0.06□	0.7□	5000□	12.0□	0.11□	31□	16□
KDE1255PFB3-8		○	12	0.05	0.6	4500	10.6	0.09	27	16□
KDE1255PFB1-8	MS.G	○	12	0.15	1.8	5100	14.0	0.14	37.4	26
KDE1255PFB2-8	MS.G	○	12	0.11	1.3	4700	12.0	0.11	30.9	26□

*Specifications subject to change without notice

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SUNON KDE Series

DC Brushless Fan

6010 :60x60x10mm

Model	P/N	Bearing ● VAPO ⊙SLEEVE ○ BALL	Rating Voltage (VDC)	Power Current (AMP)	Power Consumption (WATTS)	Speed (RPM)	Air Flow (CFM)	Static Pressure (Inch-H_2O)	Noise (dBA)	Weight (g)
KDE1206PFV1	MS.G	●	12□	0.16	1.9□	5200□	16.3□	0.13□	35□	22□
KDE1206PFV2	MS.G	●	12□	0.10	1.2□	4300□	13.8□	0.09□	34.5	22□
KDE1206PFS2-8		⊙	12□	0.10□	1.2□	4200□	13.9□	0.107□	30□	22□
KDE1206PFS3-8		⊙	12	0.07□	0.8□	3500□	12.0□	0.09□	26□	22
KDE1206PFB2-8		○	12□	0.10□	1.2□	4400□	14.5□	0.11□	31□	27□
KDE1206PFB3-8		○	12□	0.07□	0.8□	3700□	12.7 □	0.09□	27□	27□
KDE1206PFB1	MS.G	○	12□	0.16□	1.9□	5200□	16.3□	0.13□	36□	27□
KDE1206PFB2	MS.G	○	12□	0.10	1.2	4300	13.8	0.09	35□	27□
			□							□
										□

6015 :60x60x15mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KDE0506PHS2		⊙	5	0.39□	1.9□	4000□	17.8□	0.135□	31□	45
KDE0506PHS3		⊙	5	0.24□	1.2□	3300□	14.8□	0.11□	26□	45□
KDE0506PHB2		○	5	0.39□	1.9□	4200□	18.5□	0.15□	31.5□	45□
KDE0506PHB3		○	5□	0.24□	1.2□	3500□	15.2□	0.13□	26.5	45□
KDE1206PHV1	MS.G	●	12□	0.15□	1.8□	4300□	20.0□	0.18□	37.5□	39□
KDE1206PHV2	MS.G	●	12□	0.09	1.1□	3800□	17.0□	0.13□	32.5□	39□
KDE1206PHS2		⊙	12□	0.16□	1.9□	4000□	17.8□	0.135□	31□	45□
KDE1206PHS3		⊙	12□	0.09□	1.2□	3300□	14.8□	0.11□	26□	45□
KDE1206PHB2		○	12□	0.16□	1.9□	4200□	18.5□	0.15□	31.5□	45□
KDE1206PHB3		○	12□	0.09□	1.2□	3500□	15.2	0.13□	26.5□	45□
KDE1206PHB1	MS.G	○	12□	0.15□	1.8□	4300□	20.0□	0.18□	38.5□	39□
KDE1206PHB2	MS.G	○	12□	0.09	1.1	3800	17.0	0.13	33.5	39□

6020 :60x60x20mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KDE1206PKV1	MS	●	12□	0.15	1.8□	4300□	22.0□	0.17□	32□	52
KDE1206PKV2	MS	●	12□	0.09	1.1	3600	18.5□	0.14□	27.5□	52
KDE1206PKS1		⊙	12□	0.21□	2.5□	4800□	18.2□	0.16□	34□	50
KDE1206PKS2		⊙	12□	0.15□	1.8□	4200□	16.5□	0.13□	31□	50□
KDE1206PKS3		⊙	12	0.09□	1.1□	3200□	13.9□	0.10□	26.7□	50□
KDE1206PKB1		○	12□	0.21□	2.5□	5000□	21.2□	0.17□	37□	50□
KDE1206PKB2		○	12□	0.15□	1.8□	4400□	19.0□	0.148□	32□	50□
KDE1206PKB3		○	12□	0.09	1.1□	3500□	16.0□	0.13□	27□	50□
KDE1206PKB1	MS	○	12	0.15	1.8□	4300□	22.0□	0.17□	32.5□	52
KDE1206PKB2	MS	○	12□	0.09□	1.1	3600	18.5□	0.14	28	52

6025 :60x60x25mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KDE0506PTS2	V	⊙	5	0.33□	1.7□	3700□	18.0□	0.15□	29□	60□
KDE0506PTS3	V	⊙	5	0.23□	1.2□	3100□	16.0□	0.10□	25□	60□
KDE1206PTV1	MS	●	12□	0.15□	1.8□	4500□	23.0□	0.20□	33.5□	55□
KDE1206PTV2	MS	●	12□	0.09	1.1□	3800□	19.0□	0.15	30□	55
KDE1206PTS1	V	⊙	12□	0.19□	2.3□	4300□	22.5	0.20□	33.5□	60□
KDE1206PTS2	V	⊙	12□	0.13□	1.6□	3700□	18.0	0.15□	29	60□
KDE1206PTS3	V	⊙	12□	0.09□	1.1□	3100□	16.0□	0.10□	25□	60□
KDE1206PTB1	V	○	12□	0.19□	2.3□	4500□	23.5□	0.22□	34□	60□
KDE1206PTB2	V	○	12□	0.13□	1.6□	4000	19.0□	0.16□	31□	60□
KDE1206PTB3	V	○	12□	0.09□	1.1□	3200□	16.8□	0.11□	27	60□
KDE1206PTB1	MS.(2)	○	12	0.15□	1.8□	4500□	23.0□	0.20□	34.5□	55□
KDE1206PTB2	MS.(2)	○	12	0.09	1.1	3800□	19.0□	0.15□	31□	55□
KDE1206PTB1	MS	○	12	0.15	1.8□	4500□	23.5□	0.21□	34.5□	55□
KDE1206PTB2	MS	○	12	0.09	1.1	3800	19.3	0.15	31	55□

*Specifications subject to change without notice

SUNON KDE Series

DC Brushless Fan

8025 :80x80x25mm

Model	P/N	Bearing ● VAPO ⊙SLEEVE ○ BALL	Rating Voltage (VDC)	Power Current (AMP)	Power Consumption (WATTS)	Speed (RPM)	Air Flow (CFM)	Static Pressure (Inch-H_2O)	Noise (dBA)	Weight (g)
KDE2408PTS1-6		⊙	24	0.12	2.9	3000□	41.7	0.18	34	100
KDE2408PTS2-6		⊙	24	0.10	2.4	2650	34.4	0.16	30	100
KDE2408PTS3-6		⊙	24	0.07	1.7	2200	29.4	0.11	24.5	100
KDE2408PTB1-6		○	24	0.12	2.9	3200	42.5	0.23	36.5	100
KDE2408PTB2-6		○	24	0.10	2.4	2800	35	0.20	32.5	100
KDE2408PTB3-6		○	24	0.07	1.7	2500	30	0.14	28.5	100

9225 :92x92x25mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KDE2409PTS1-6		⊙	24	0.12	2.9	2800	50	0.17	35	121
KDE2409PTS2-6		⊙	24	0.09	2.2	2500	44	0.15	33	121
KDE2409PTS3-6		⊙	24	0.07	1.7	2100	39	0.11	27	121
KDE2409PTB1-6		○	24	0.12	2.9	3000	51	0.20	37	121
KDE2409PTB2-6		○	24	0.09	2.2	2600	45	0.18	34	121
KDE2409PTB3-6		○	24	0.11	2.7	2300	40	0.13	28	123

12025 :120x120x25mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KDE1212PTS1-6A		⊙	12□	0.38□	4.6□	3000□	88□	0.27□	44□	200□
KDE1212PTS2-6A		⊙	12□	0.30□	3.6□	2700□	78□	0.21□	40□	200□
KDE1212PTS3-6A		⊙	12□	0.20□	2.4□	2300□	67□	0.16□	35□	200□
KDE1212PTB1-6A		○	12□	0.38□	4.6□	3100□	90□	0.28□	44.5□	200□
KDE1212PTB2-6A		○	12□	0.30□	3.6□	2800□	80□	0.22□	41□	200□
KDE1212PTB3-6A		○	12□	0.20□	2.4□	2400□	69□	0.17□	35.5□	200□
KDE2412PTS1-6A		⊙	24□	0.22□	5.3□	3000□	88□	0.27□	44□	200□
KDE2412PTS2-6A		⊙	24□	0.17□	4.1□	2700□	78□	0.21□	40□	200□
KDE2412PTS3-6A		⊙	24□	0.13□	3.1	2300□	67□	0.16□	35□	200□
KDE2412PTB1-6A		○	24□	0.22□	5.3□	3100□	90□	0.28□	44.5□	200□
KDE2412PTB2-6A		○	24□	0.17□	4.1□	2800□	80□	0.22□	41□	200□
KDE2412PTB3-6A		○	24	0.13	3.1	2400	69	0.17	35.5	200□

12038 :120x120x38mm

Model	P/N	Bearing	(VDC)	(AMP)	(WATTS)	(RPM)	(CFM)	(Inch-H2O)	(dBA)	(g)
KDE1212PMSX-6A		⊙	12□	0.63□	7.6□	3100□	119□	0.32□	45□	326
KDE1212PMS1-6A		⊙	12□	0.57□	6.8□	3000□	107□	0.30□	41□	326
KDE1212PMS2-6A		⊙	12□	0.43□	5.1□	2700□	97□	0.24□	36□	326
KDE1212PMS3-6A		⊙	12□	0.27□	3.2□	2300□	83□	0.18□	34□	326
KDE1212PMBX-6A		○	12	0.63□	7.6□	3150□	120□	0.34□	46.5□	326
KDE1212PMB1-6A		○	12□	0.57□	6.8□	3100□	108□	0.31□	42□	326
KDE1212PMB2-6A		○	12□	0.43□	5.1□	2800□	98□	0.25□	36.5□	326
KDE1212PMB3-6A		○	12□	0.27□	3.2□	2400□	84□	0.19□	35	326
KDE2412PMSX-6A		⊙	24□	0.30□	7.2	3100□	119□	0.32□	45□	326
KDE2412PMS1-6A		⊙	24□	0.28□	6.7	3000□	107□	0.30□	41□	326
KDE2412PMS2-6A		⊙	24□	0.23□	5.5□	2700□	97□	0.24□	36□	326
KDE2412PMS3-6A		⊙	24□	0.17□	4.0□	2300□	83□	0.18□	34□	326
KDE2412PMBX-6A		○	24□	0.30	7.2□	3150□	120□	0.34□	46.5□	326
KDE2412PMB1-6A		○	24□	0.28□	6.7	3100□	108□	0.31□	42□	326
KDE2412PMB2-6A		○	24□	0.23□	5.5□	2800□	98□	0.25□	36.5□	326
KDE2412PMB3-6A		○	24	0.17□	4.0	2400□	84	0.19	35	326

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